

## ABSTRACT

The present invention provides a method for producing a tertiary butyl alcohol with a high reaction rate of hydration of isobutylene. Furthermore, the present invention provides a method for producing a tertiary butyl alcohol with a high reaction rate of hydration of isobutylene even in the case of using an isobutylene of low concentration as a raw material. In this method, a tertiary butyl alcohol is produced from isobutylene and water in the presence of a cation-exchange resin catalyst and at least one solvent selected from the group consisting of sulfones and organic carboxylic acids by using a catalytic distillation apparatus. The solvent to be used in the method for producing a tertiary butyl alcohol is preferably sulfolane, dimethyl sulfone or acetic acid.